



INFORMATION DISCLOSURE STATEMENT BY APPLICANT <small>(Use several sheets if necessary)</small>		Docket Number: ACE-00101.P.1.2-US	
		Application Number: 10/705,615	
		Applicant: Xiaobo Wang	
		Filing Date: November 10, 2003 Group Art Unit: 1744	

U.S. PATENT DOCUMENTS						
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS
/WHB/	P1	2002/0032531	03/2002	Mansky et al		
	P2	2002/0076690	06/2002	Miles et al		
	P3	2002/0086280	07/2002	Lynes et al		
	P4	2002/0110847	08/2002	Baumann et al		
	P5	2002/0150886	10/2002	Miles et al		
	P6	2,656,508	10/1953	Coulter		
	P7	3,259,842	07/1966	Coulter et al		
	P8	3,743,581	07/1973	Cady et al		
	P9	3,890,201	06/1975	Cady		
	P10	4,072,578	02/1978	Cady et al		
	P11	4,225,410	09/1980	Pace		
	P12	4,686,190	08/1987	Cramer et al		
	P13	4,920,047	04/1990	Giaever et al		
	P14	5,134,070	07/1992	Casnig		
	P15	5,187,096	02/1993	Giaever et al		
	P16	5,218,312	06/1993	Moro		
↓	P17	5,278,048	01/1994	Parce et al		
/WHB/	P18	5,284,753	02/1994	Goodwin		

Examiner Signature	/William Beisner/	Date Considered	09/14/2008
--------------------	-------------------	-----------------	------------

U.S. PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE IF APPROPRIATE
/WHB/	P19	5,563,067	10/1996	Sugihara et al			
	P20	5,626,734	05/1997	Docoslis et al			
	P21	5,643,742	07/1997	Malin et al			
	P22	5,801,055	09/1998	Henderson			
	P23	5,810,725	10/1998	Sugihara et al			
	P24	5,851,489	12/1998	Wolf et al			
	P25	5,981,268	11/1999	Kovacs et al			
	P26	6,051,422	04/2000	Kovacs et al			
	P27	6,132,683	10/2000	Sugihara et al			
	P28	6,169,394	01/2001	Frazier et al			
	P29	6,232,062	05/2001	Kayyem et al			
	P30	6,235,520	05/2001	Malin et al			
	P31	6,280,586	08/2001	Wolf et al			
	P32	6,288,527	09/2001	Sugihara et al			
	P33	6,368,851	04/2002	Baumann et al			
	P34	6,376,233	04/2002	Wolf et al			
	P35	6,448,030	09/2002	Rust et al			
↓	P36	6,448,794	09/2002	Cheng et al			
/WHB/	P37	6,472,144	10/2002	Malin et al			
	P38						

Examiner Signature	/William Beisner/	Date Considered	09/14/2008
--------------------	-------------------	-----------------	------------

FOREIGN PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	Translation
							YES NO
/WHB/	F1	96/01836	01/1996	PCT			
/WHB/	F2	99/66329	12/1999	PCT			
/WHB/	F3	00/71669	11/2000	PCT			
/WHB/	F4	01/038873	05/2001	PCT			
/WHB/	F5	02/42766	05/2002	PCT			
	F6						

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)		
EXAMINER INITIALS	CITATION	
/WHB/	D1	Aravanis et al. A genetically engineered cell-based biosensor for functional classification of agents. Biosensors & Bioelectronics 16:571-577 (2001)
/WHB/	D2	Baumann et al. Microelectronic sensor system for microphysiological application on living cells. Sensors & Accuators B55:77-89 (1999)
/WHB/	D3	Becker et al. Separation of human breast cancer cells from blood by differential dielectric affinity. Cell Biology. 92:960-964 (1995)
/WHB/	D4	Berens et al, The role of extracellular matrix in human astrocytoma migration and proliferation studied in a microliter scale assay. Clin. Exp. Metastasis 12:405-415 (1994)
/WHB/	D5	Bergveld, A critical evaluation of direct electrical protein detection methods, Biosensors& Bioelectronics. 6:55-72 (1991)
/WHB/	D6	Burns et al, Neutrophil Transendothelial Migration Is Independent of Tight Junctions and Occurs Preferentially at Tricellular Corners. Journal of Immunology 2893-2903 (1997)

Examiner Signature	/William Beisner/	Date Considered	09/14/2008
--------------------	-------------------	-----------------	------------

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)		
EXAMINER INITIALS		CITATION
/WHB/	D7	Duan et al, Separation-Free Sandwich Enzyme Immunoassays Using Microporous Gold Electrodes and Self-Assembled Monolayer/Immobilized Capture Antibodies, <i>Anal. Chem.</i> 66:1369-1377 (1994)
/WHB/	D8	Connolly et al., An extracellular microelectrode array for monitoring electrogenic cells in culture <i>Biosensors & Bioelectronics</i> 5: 223-234 (1990)
/WHB/	D9	Ehret et al, Monitoring of cellular behaviour by impedance measurements on interdigitated electrode structures. <i>Biosensors and Bioelectronics</i> 12(1):29-41 (1997)
/WHB/	D10	Ehret et al, On-line control of cellular adhesion with impedance measurements using interdigitated electrode structures, <i>Medical & Biological Engineering and Computing</i> 36:365-370 (1998) .
/WHB/	D11	Falk et al, A 48-well Micro Chemotaxis Assembly for Rapid and Accurate Measruement of Leukocyte Migration. <i>J Immunol. Meth.</i> 33:239-247 (1980)
/WHB/	D12	Fuhr et al, Positioning and Manipulatin of Cells and Microparticles Using Miniaturized Electric Field Traps and Travelling Waves. <i>Sensors and Materials</i> 7(2):131-146 (1995)
/WHB/	D13	Gaiever et al, Monitoring fibroblast behavior in tissue culture with an applied electric field. <i>Proc. Natl. Acad. Sci</i> 81:3761-3764 (1984)
/WHB/	D14	Giaever et al, Micromotion of mammalian cells measured electrically. <i>Proc. Natl. Acad. USA</i> 88: 7896-7900 (1991)
/WHB/	D15	Hadjout et al., Automated Real-Time Measurement of Chemotactic Cell Motility <i>BioTechniques</i> 31: 1130-1138 (2001)
/WHB/	D16	Henning et al, Approach to a multiparametric sensor-chip-based tumor chemosensitivity assay, <i>Anti-Cancer Drugs</i> 12:21-32 (2001)
/WHB/	D17	Hidalgo et al, Characterization of the Human Colon Carcinoma Cell Line (Caco-2) as a Model System for Intestinal Epithelial Permeability. <i>Gastroenterology</i> 96:736-749 (1989)
/WHB/	D18	Huang et al., Dielectrophoretic Cell Separation and Gene Expression Profiling on Microelectronic Chip Arrays. <i>Anal. Chem.</i> 74:3362-3371 (2002)

Examiner Signature	/William Beisner/	Date Considered	09/14/2008
--------------------	-------------------	-----------------	------------

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)		
EXAMINER INITIALS		CITATION
/WHB/	D19	Keesee et al, Real-time impedance assay to follow the invasive activities of metastatic cells in culture. <i>Biotechniques</i> 33:842-850 (2002)
/WHB/	D20	Kleinmann et al, Basement Membrane Complexes with Biological Activity. <i>Biochemistry</i> . 26:312-318 (1986)
/WHB/	D21	Kowolenko et al., Measurement of macrophage adherence and spreading with weak electric fields. <i>Journal of Immunological Methods</i> 127: 71-77 (1990)
/WHB/	D22	Larsen et al, Somatic Cell Counting with Silicon Apertures. <i>Micro Total Analysis Systems</i> 103-106 (2000)
/WHB/	D23	Lo et al, Monitoring motion of confluent cells in tissue culture, <i>Experimental Cell Research</i> 204:102-109 (1993)
/WHB/	D24	Lo et al., pH Changes in pulsed CO ₂ incubators cause periodic changes in cell morphology <i>Experimental Cell Research</i> 213: 391-397 (1994)
/WHB/	D25	Lo et al., Impedance Analysis of MDCK cells measured by electric cell-substrate impedance sensing <i>Biophysical Journal</i> 69: 2800-2807 (1995)
/WHB/	D26	Luong, et al., Monitoring Motility, Spreading, and Mortality of Adherent Insect Cells Using an Impedance Sensor. <i>Analytical Chemistry</i> 73: 1844-1848 (2001)
/WHB/	D27	Mitra et al, Electric measurements can be used to monitor the attachment and spreading of cells in tissue culture. <i>Biotechniques</i> 11(4):504-510 (1991)
/WHB/	D28	Miyata et al, New Wound-Healing Model Using Cultured Corneal Endothelial Cells. <i>Jpn. J. Ophthalmol.</i> 34:257-266 (1990).
/WHB/	D29	Neher, Molecular biology meets microelectronics <i>Nature Biotechnology</i> 19: 114 (2001)
/WHB/	D30	Nerurkar et al, The Use of Surfactants to Enhance the Permeability of Peptides Through Caco-2 Cells by Inhibition of an Apically Polarized Efflux System. <i>Pharmaceutical Research</i> 13(4):528-534 (1996)
/WHB/	D31	Ong et al, Remote Query Resonant-Circuit Sensors For Monitoring of Bacterial Growth: Application to Food Quality Control. <i>Sensors</i> 2:219-222 (2002)

Examiner Signature	/William Beisner/	Date Considered	09/14/2008
--------------------	-------------------	-----------------	------------

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)	
EXAMINER INITIALS	CITATION
/WHB/	D32 Pancrazio et al, Portable cell-based biosensor system for toxin detection. Sensors and Actuators B 53:179-185 (1998)
/WHB/	D33 Patolsky et al, Detection of single-base DNA mutations by enzyme-amplified electronic transduction. Nature Biotechnology 19:253-257 (2001)
/WHB/	D34 Pethig et al, Positive and negative dielectrophoretic collection of colloidal particles using interdigitated castellated microelectrodes. Appl. Phys. 24:881-888 (1992)
/WHB/	D35 Richards et al, A Modified Microchamber Method For Chemotaxis and Chemokinesis. Immunological Communications 13(1):49-62 (1984)
/WHB/	D36 Rishpon et al, An amperometric enzyme-channeling immunosensor, Biosensors & Bioelectronics, 12(3):195-204 (1997)
/WHB/	D37 Simpson et al., Whole-cell biocomputing Trends in Biotechnology 19: 317-323 (2001)
/WHB/	D38 Sohn et al, Capacitance cytometry: Measuring biological cells one by one. Proc. Nat. Acad. Sci. 97(20)10687-10690 (2000)
/WHB/	D39 Stenger et al., Detection of physiologically active compounds using cell-based biosensors. Trends in Biotechnology 19: 304-309 (2001)
/WHB/	D40 Svetlicic et al., Charge displacement by adhesion and spreading of a cell Bioelectrochemistry 53: 79-86 (2000)
/WHB/	D41 Tiruppathi et al, Electrical method for detection of endothelial cell shape change in time: assessment of endothelial barrier function. Proc Natl Acad Sci USA 89:7919-7923 (1992)
/WHB/	D42 Wang et al, A theoretical method of electrical field analysis for dielectrophoretic electrode arrays using Green's theorem. Appl. Phys. 1649-1660 (1996)
/WHB/	D43 Wang et al, Selective dielectrophoretic confinement of bioparticles in potential energy wells. Appl. Phys. 26:1278-1285 (1993)
/WHB/	D44 Wang et al, Cell Separation by Dielectrophoretic Field-flow-fractionation. Anal. Chem. 72:832-839 (2000)

Examiner Signature	/William Beisner/	Date Considered	09/14/2008
--------------------	-------------------	-----------------	------------

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)	
EXAMINER INITIALS	CITATION
/WHB/	D45 Wang et al, Dielectrophoretic Manipulation of Cells with Spiral Electrodes. <i>Biophysical Journal</i> 72:1887-1899 (1997)
/WHB/	D46 Wang et al, Separation of Polystyrene Microbeads Using Dielectrophoretic/Gravitational Field-Flow-Fractionation. <i>Biophysical Journal</i> 74:2689-2701 (1998)
/WHB/	D47 Wang et al., Electronic Manipulation of Cells on Microchip-Based Devices. In <i>Biochip Technology</i> (eds.) Harwood Academic Publishers, PA U.S.A. 135-159 (no date provided)
/WHB/	D48 Warburg, Ueber die Polarisationskapazität des Platins. <i>Ann. Phy.</i> 6:125-135 (1901)
/WHB/	D49 Wegener et al, Electric cell-substrate impedance sensing system (ECIS) as a noninvasive means to monitor the kinetics of cell spreading to artificial surfaces, <i>Experimental Cell Research</i> , 259:158-166 (2000)
/WHB/	D50 Wolf et al, Monitoring of cellular signalling and metabolism with modular sensor-technique: The PhysioControlMicrosystem (PCM). <i>Biosensors & Bioelectronics</i> 13:501-509 (1998)
/WHB/	D51 Xiao et al, An in-depth Analysis of Electric Cell-Substrate Impedance Sensing To Study the Attachment and Spreading of Mammalian Cells, <i>Anal. Chem.</i> 74:1333-1339 (2002)
/WHB/	D52 Yang et al, Cell Separation on Microfabricated Electrodes Using Dielectrophoretic/Gravitational Field-Flow Fractionation. <i>Anal. Chem.</i> 71:911-918 (1999)
/WHB/	D53 http://www.neuroprobe.com/protocol/pt_96a.html (no date provided)
/WHB/	D54 http://www.bdbiosciences.com/discovery_labware/Products/inserts/BD_Falcon_HTS_fluoroblok_inserts/individual_fluoroblok_inserts/index.html (no date provided)
/WHB/	D55 http://www.tecan.com/migration_intro1.pdf (no date provided)
/WHB/	D56 New Products page. <i>Science</i> 298:2409 (2002)
/WHB/	D57 Abstract: Real-Time Impedance Assay to Follow the Invasive Activities of Metastatic Cells in Culture. <i>Biotechniques</i> 33: 842 (2002)
/WHB/	D58 http://www.biophysics.com/pages/front.html (no date provided)
	D59

Examiner Signature	/William Beisner/	Date Considered	09/14/2008
--------------------	-------------------	-----------------	------------